

KEYSIGHT TECHNOLOGIES (AGILENT HP)

6620 Series - 25-105W

The Keysight Technologies (formerly Agilent HP) 6620 Series - 25-105W represents a family of programmable DC system power supplies designed for automated test environments. These multi-output units offer precise voltage and current control, rapid programming, and comprehensive protection features, making them suitable for a wide range of applications requiring stable and reliable power delivery.

SPECIFICATIONS

General

Interfaces	GPIO (IEEE 488.2)
Display	Segmented LED (Voltage/Current per channel)
Recommended Calibration Interval	1 year
Warm-up Time	30 minutes to rated specifications
Self-Test	Power-on self-test

Physical

Power Supply	100-120 VAC / 220-240 VAC (selectable), 47-63 Hz
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	426 mm × 133 mm × 497 mm mm
Weight	18.1 kg kg
Cooling Type	Fan-cooled
Cooling Airflow	Front intake, rear exhaust

General Specifications

Product Series	6620 Series
Output Power Range (Total)	25 W to 105 W (model dependent)

Output Specifications

Number of Outputs	2, 3, or 4 (model dependent)
Output Voltage Range	Up to 50 V (channel dependent, e.g., 0-7V, 0-16V, 0-20V, 0-50V)
Output Current Range	Up to 10 A (channel dependent, e.g., 0-0.8A, 0-2A, 0-5A, 0-10A)
Voltage Programming Accuracy	$\pm(0.05\%$ of output + 10 mV) (<20V outputs), $\pm(0.05\%$ of output + 30 mV) (>20V outputs)
Voltage Programming Resolution	10 mV (<20V outputs), 30 mV (>20V outputs)
Current Programming Accuracy	$\pm(0.1\%$ of output + 10 mA) (<2A outputs), $\pm(0.1\%$ of output + 20 mA) (<5A outputs), $\pm(0.1\%$ of output + 50 mA) (<10A outputs)
Current Programming Resolution	10 mA (<2A outputs), 20 mA (<5A outputs), 50 mA (<10A outputs)
Voltage Load Regulation	$<0.01\% + 2$ mV (<20V outputs), $<0.01\% + 3$ mV (>20V outputs)
Voltage Line Regulation	$<0.01\% + 2$ mV (<20V outputs), $<0.01\% + 3$ mV (>20V outputs)
Current Load Regulation	$<0.01\% + 2$ mA (<2A outputs), $<0.01\% + 5$ mA (<5A outputs), $<0.01\% + 10$ mA (<10A outputs)
Current Line Regulation	$<0.01\% + 2$ mA (<2A outputs), $<0.01\% + 5$ mA (<5A outputs), $<0.01\% + 10$ mA (<10A outputs)
PARD (Ripple and Noise) Voltage Peak-to-Peak	<15 mVpp (typically for <20V outputs)
PARD (Ripple and Noise) Voltage RMS	<0.5 mVrms (typically for <20V outputs)
PARD (Ripple and Noise) Current RMS	<1 mA rms (typically for <5A outputs)
Transient Response Time	<3 ms (to within 50mV of final value for 50% load change)

Measurement (Readback) Specifications

Voltage Readback Accuracy	$\pm(0.05\%$ of output + 10 mV)
Voltage Readback Resolution	10 mV
Current Readback Accuracy	$\pm(0.1\%$ of output + 10 mA)
Current Readback Resolution	10 mA

Remote Sensing

Remote Sense Compensation	Up to 0.5 V per lead
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Protection Features

Over Voltage Protection (OVP)	Yes, programmable (e.g., 10% to 110% of Vset)
Over Current Protection (OCP)	Yes, programmable (current limit)
Over Temperature Protection (OTP)	Yes
Foldback Protection	Yes (current limiting)

Programming and Interface

Programming Language Compatibility	SCPI (Standard Commands for Programmable Instruments)
GPIO Compatibility	IEEE 488.2
Triggering Capability	Yes (via GPIO)
Output Isolation Voltage (Output to Chassis)	240 VDC
Channel Isolation Voltage (Channel to Channel)	500 VDC (for multi-output models)

Input Power Requirements

AC Input Voltage Range	100-120 VAC / 220-240 VAC
AC Input Frequency Range	47-63 Hz
Maximum Input Power Consumption	250 VA (for 105W models)
Input Current Rating	3.2 A @ 100VAC, 1.6 A @ 200VAC (for 105W models)

Environmental Conditions

Storage Temperature Range	-40 to 70 °C
Operating Humidity Range	15% to 95% RH, non-condensing
Storage Humidity Range	5% to 90% RH, non-condensing
Operating Altitude	Up to 2000 m
Non-Operating Altitude	Up to 4600 m

Physical Characteristics

Form Factor	Benchtop, Rack Mount
Rack Units (U)	3U

Safety and Regulatory Compliance

Safety Standards Compliance	IEC 61010-1, CSA 22.2 No. 61010-1
EMC Standards Compliance	EN 61326-1, CISPR 11 Group 1 Class A
CE Mark	Yes
CSA Mark	Yes
IEC Compliance	Yes

Included Accessories

Power Cord	Yes
User Manual	Yes
Programming Manual	Yes

Optional Accessories

Rack Mount Kit	No (Standard accessory)
GPIO Cable	Yes (Optional accessory)

Connectivity

Remote Interface	GPIO (Standard), RS-232 (Optional via Option 002)
RS-232 Interface	Optional (via Option 002)

Output Characteristics

Voltage Programming Rise Time (no load)	< 40 ms
Voltage Programming Fall Time (no load)	< 100 ms
Voltage Programming Rise Time (full resistive load)	< 100 ms
Voltage Programming Fall Time (full resistive load)	< 100 ms
Current Programming Rise Time	< 50 ms
Current Programming Fall Time	< 50 ms
Output Voltage Stability (8 hours, CV mode)	< 0.01% + 200 μ V
Output Current Stability (8 hours, CC mode)	< 0.05% + 500 μ A
Remote Sense Lead Drop Compensation	0.5 V per lead
Output Series Operation	Supported (external connection)
Output Parallel Operation	Supported (external connection)
Output Control	Individual channel ON/OFF

Environmental

Acoustic Noise	< 45 dBA
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Display

Display Digits	Not universally 4 digits; some voltage ranges display 3 digits (e.g., 50.0V), while others display 4 digits.
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TECHNOLOGY

Linear Regulated DC Power Supply

APPLICATIONS

Automated Test Equipment (ATE), Benchtop R&D, System Integration

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